Claims

1. An image formation and control method, comprising
a performance priority mode for normally reproducing data to be printed and
a safety priority mode capable of carrying out the required reproduction more reliably than in the performance priority mode,
wherein the performance priority mode or the safety priority mode is selectable.

2. An image formation and control method, comprising
a performance priority mode for normally reproducing data to be printed and
a safety priority mode capable of carrying out the required reproduction more reliably than in the performance priority mode,
wherein when the number of reproductions of the data to be printed is limited, the performance priority mode is changed into the safety priority mode.

3. An image formation and control method, comprising
a performance priority mode for normally reproducing data to be printed and
a safety priority mode capable of carrying out the required reproduction more reliably than in the performance priority mode,
wherein either the performance priority mode or the safety priority mode is selected based on printing management information added corresponding to the data to be printed.

4. An image formation and control method, comprising
a performance priority mode for normally reproducing data to be printed and
a safety priority mode capable of carrying out the required reproduction more reliably than in the performance priority mode,
wherein when the number of reproductions of the data to be printed is limited, the performance priority mode is changed into the safety priority mode based on the printing management information added corresponding to the data to be printed.

5. An image formation and control method, comprising

a performance priority mode for normally reproducing data to be printed, and

a safety priority mode capable of carrying out the required reproduction more reliably than in the performance priority mode, the method comprising:

changing the performance priority mode into the safety priority mode when the number of reproductions of the data to be printed is limited;

managing the number of printing of the data to be printed as a printing history; and

controlling the printing of the data to be printed based on the number of reproductions of the data to be printed and the managed printing history.

6. The image formation and control method according to claim 5, wherein the method comprises: detecting the ejection of recording media on which the data printing is carried out; receiving a printing end information for reducing the number of reproductions of the data to be printed one by one in response to the detection of the ejection of the recording media; and updating the printing history based on the printing end information.

7. The image formation and control method according to claim 1, wherein when the mode is changed into the safety priority mode capable of carrying out the reproduction more reliably than in the performance priority mode, a second condition is set in which a feed control accuracy of the recording media is higher than in a first condition in which the performance priority mode is set.

8. The image formation and control method according to claim 7, wherein printing management information indicating whether the number of reproductions is limited is added to the data to be printed and when it is determined that the number of reproductions is limited with reference to the information, the condition is changed into the second condition for setting the safety priority mode in which the feed control accuracy of the recording medium is higher than in the first condition in which the performance priority mode is set.

9. The image formation and control method according to claim 7, wherein the first and the second conditions respectively comprise first and second time intervals for detecting the feed state of the recording media, and the second time interval is shorter than the first time interval.

10. The image formation and control method according to claim 7, wherein the first and the second conditions respectively comprise first and second feed intervals between the recording media, and the second feed interval is longer than the first feed interval.

11. The image formation and control method according to claim 7, wherein the first and the second conditions respectively comprise a first time margin and a second time margin in detecting feed errors of the recording media, and the second time margin is shorter than the first time margin.

12. The image formation and control method according to claim 1, wherein when the mode is changed into the safety priority mode capable of carrying out the reproduction more reliably than in the performance priority mode, the limit value of the remaining amount of a marking agent used for data printing onto recording media is changed from a first set value to a second set value that is larger than the first set value and when it is determined that the detected remaining amount is not more than the second set value, as a result of detecting the remaining amount of the marking agent, the execution of the data printing is controlled to be disabled.

13. The image formation and control method according to claim 3, wherein the printing management information comprises information indicating whether the number of reproductions of the data to be printed is limited and when it is determined that the number of reproductions is limited with reference to the information, the limit value of a remaining amount of a marking agent used for data printing onto recording media is changed from a first set value to a second set value that is larger than the first set value, and when it is determined that the detected remaining amount is not more than the second set value, as a resulting of detecting the remaining amount of the marking agent, the execution of the data printing is controlled to be disabled.

14. An image formation and control method, comprising controlling the

execution of the data printing to be disabled when it is determined that the detected remaining amount of the recording media is not more than a predetermined limit value, as a result of detecting the remaining amount of recording media for data printing.

15. The image formation and control method according to claim 14, wherein when the number of reproductions of the data to be printed is limited, the execution of the data printing is controlled to be disabled based on the detected remaining amount of the recording media on which the data printing is carried out.

16. The image formation and control method according to claim 1, wherein when the mode is changed into the safety priority mode capable of carrying out the reproduction more reliably than in the performance priority mode, the limit value of a remaining amount of recording media on which data are printed is changed from a first set value to a second set value that is larger than the first set value and when it is determined that the detected remaining amount is not more than the second set value, as a result of detecting the remaining amount of the recording media, the execution of the data printing is controlled to be disabled.

17. The image formation and control method according to claim 3, wherein the printing management information comprises information indicating whether the number of reproductions of the data to be printed is limited and when it is determined that the number of reproductions is limited with reference to the information, the limit value of a remaining amount of recording media on which data are printed is changed from a first set value to a second set value that is larger than the first set value and when it is determined that the detected remaining amount is not more than the second set value, as a result of detecting the remaining amount of the recording media, the execution of the data printing is controlled to be disabled.

18. The image formation and control method according to claim 1, wherein when the mode is changed into the safety priority mode capable of carrying out the reproduction more reliably than in the performance priority mode and the data-processing is required for printing, the method allows a user to check whether the data printing is carried out.

19. An image formation and control method, comprising allowing a user to determine whether the data printing is carried out when the number of reproductions of the data to be printed has limitations and the data-processing is required for printing.

20. The image formation and control method according to claim 3, wherein the printing management information comprises information indicating whether the number of reproductions of the data to be printed is limited and when it is determined that the number of reproductions is limited with reference to the information and the data-processing is required for printing, the method allows a user to check whether the data printing is carried out.

21. The image formation and control method according to claim 1, wherein when the mode is changed into the safety priority mode capable of carrying out the reproduction more reliably than in the performance priority mode and the data-processing is required for printing, the execution of the data printing is controlled to be disabled.

22. An image formation and control method, comprising controlling the execution of the data printing to be disabled when the number of reproductions of the data to be printed is limited and the data-processing is required for printing.

23. The image formation and control method according to claim 3, wherein the printing management information comprises information indicating whether the number of reproductions of the data to be printed is limited and when it is determined that the number of reproductions is limited with reference to the information and the data-processing is required for printing, the execution of the data printing is controlled to be disabled.

24. The image formation and control method according to claim 19, wherein the criterion by which to determine whether the data-processing is required for printing is whether the data printing requires the resolution conversion.

25. The image formation and control method according to claim 19, wherein the criterion by which to determine whether the data-processing is required for printing is whether the data printing requires the color/black-and-white conversion.

26. An image formation and control method, comprising carrying out the data printing with the image quality deteriorated when the number of reproductions of data to be printed is limited and the remaining number of reproductions becomes zero by repeating the reproduction of the data.

27. The image formation and control method according to claim 5, wherein when the remaining number of reproductions in the printing history becomes zero, the condition is changed into the third condition for setting the third mode in which the data printing is carried out with the image quality deteriorated.

28. The image formation and control method according to claim 27, wherein the third condition comprises a setting for processing to deteriorate the image of the data to be printed.

29. The image formation and control method according to claim 27, wherein the third condition comprises a setting for processing to deteriorate the image of the read-out data without deteriorating the data so as to be printed.

30. An image formation and control method, comprising disabling the execution of the data printing when the number of reproductions of the data to be printed is limited and the remaining number of reproductions becomes zero by repeating the reproduction of the data.

31. The image formation and control method according to claim 5, wherein when the remaining number of reproduction in the printing history becomes zero, the execution of the data printing is disabled.

32. An image formation apparatus using the image formation and control method according to claim 1.

33. A storage medium, to which the first image formation and control method according to claim 1 is applied and in which the data to be printed are stored.

34. A storage medium, to which the first image formation and control method according to claim 3 is applied and in which the data to be printed are stored.

35. The storage medium according to claim 33, wherein the storage medium is a portable storage medium.

36. The storage medium according to claim 34, wherein the storage medium is a portable storage medium.